

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking to Implement the  
Commission's Procurement Incentive Framework and to  
Examine the Integration of Greenhouse Gas Emissions  
Standards into Procurement Policies

Rulemaking 06-04-009

**COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E)  
AND SOUTHERN CALIFORNIA GAS COMPANY (U 904 G)  
ON THE DRAFT WORKSHOP REPORT**

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September 8, 2006

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**I.  
INTRODUCTION AND BACKGROUND**

In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (the "Commission") and the Administrative Law Judge's Ruling Regarding Workshop Report and Motions to Intervene, issued August 22, 2006 (the "ALJ Ruling"), as modified by ALJ Econome on August 28, 2006, San Diego Gas & Electric ("SDG&E") and Southern California Gas Company ("SoCalGas") hereby submit these comments concerning the *Draft Workshop Report: Interim Emissions Performance Standard Program Framework, R.04-06-009* ("Draft Workshop Report") prepared by Commission Staff.

The Draft Workshop Report identifies the Commission's primary objective in scheduling the workshop as "identify[ing] key issues to consider when contemplating an EPS, and . . . develop[ing] an EPS program proposal that would incorporate policy, design, and implementation issues identified by parties and staff."<sup>1/</sup> To that end, as directed in the ALJ Ruling, SDG&E and SoCalGas set forth below their views

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<sup>1/</sup> Draft Workshop Report, p. 1.

concerning the revised Staff Straw Proposal included in Section C of the Draft Workshop Report (“Revised Staff Proposal”).<sup>2/</sup> In addition, SDG&E and SoCalGas address the impact of recently-passed Assembly Bill (“AB”) 32 and Senate Bill (“SB”) 1368 on policy and implementation issues currently under consideration in Phase I of this proceeding in order to further develop the record concerning the proposed interim greenhouse gas (“GHG”) Emissions Performance Standard (“EPS”).<sup>3/</sup>

SDG&E and SoCalGas believe that the Revised Staff Proposal reflects Staff’s responsiveness to parties’ concerns regarding the design of an effective EPS. While fully supporting the prospective “gateway” approach, as well as the administrative simplicity afforded by the focus on large, long-term baseloaded contracts, SDG&E and SoCalGas do recommend a limited number of modifications to the Revised Staff Proposal intended to increase the reasonableness and clarity of the proposal, and the Commission’s flexibility in implementing it. As discussed in greater detail below, the proposed EPS should be set at least at 1,100 pounds of CO<sub>2</sub> per Megawatt Hour (“MWh”). In addition, the EPS should include clearly-defined methodologies for the calculation of associated GHG emissions of cogeneration facilities and of power from unspecified resources. The absence of such clearly-defined methodologies will cause confusion and delay in the implementation of the EPS.

Finally, assuming that SB 1368 becomes law, additional modifications may be required in order to reconcile the provisions contained in that legislation. For example,

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<sup>2/</sup> ALJ Ruling, p. 1. SDG&E and SoCalGas have responded to arguments made by parties in post-workshop comments only to the extent that the Revised Staff Proposal relies on such comments. The failure to address any party’s comments is not intended to indicate agreement with such comments. In addition, SDG&E and SoCalGas do not attempt herein to correct workshop comments attributed to them or the Staff’s interpretation of their pre-workshop comments summarized in Appendix A.

<sup>3/</sup> Both AB 32 and SB 1368 have been adopted by the Legislature and it is anticipated that both bills will be signed by the Governor.

SB 1368 appears to require that the interim EPS be set at a level that would permit all combined cycle gas turbines (“CCGTs”) to comply, and to require inclusion of a “safety valve” for pricing. In addition, in light of AB 32’s mandate that the California Air Resources Board (“CARB”) consult with the Commission in order to minimize duplicative or inconsistent regulatory requirements,<sup>4/</sup> the Commission should work closely with CARB to ensure that the interim GHG EPS adopted in Phase I is the sole EPS applied to the utilities.

## **II. THE EPS SHOULD BE AT LEAST 1,100 POUNDS GHG PER MWh**

The main value of an interim EPS lies in the information supplied to generation developers. SDG&E and SoCalGas agree that a single standard, such as that proposed in the Revised Staff Proposal, provides an unambiguous standard and a clear signal to generation developers. SDG&E and SoCalGas submit, however, that the EPS should be at least 1,100 pounds of GHG per MWh so as to insure that all CCGTs will pass the EPS.

As an initial matter, SDG&E and SoCalGas note that setting the EPS at a level that will ensure passage by all CCGTs is consistent with the direction provided in SB 1368:

On or before February 1, 2007, the commission, through a rulemaking proceeding, and in consultation with the Energy Commission and the State Air Resources Board, shall establish a greenhouse gases emission performance standard for all baseload generation of load-serving entities, at a rate of emissions of greenhouse gases that is no higher than the rate of emissions of greenhouse gases for combined-cycle natural gas baseload generation. Enforcement of the greenhouse gases emission performance standard shall begin immediately upon the establishment of the standard. **All combined-cycle natural gas powerplants that are in operation, or that have an Energy**

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<sup>4/</sup> Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, Part I, Chapter 2, §§ 38501(g) and §38562(f).

**Commission final permit decision to operate as of June 30, 2007, shall be deemed to be in compliance with the greenhouse gases emission performance standard.<sup>5/</sup>**

Moreover, the Draft Workshop Report's conclusion that 1,000 pounds per MWh is the appropriate measure appears to be predicated on the assumption that most CCGTs will meet that standard.<sup>6/</sup> This is not the case, however. Based on the data developed in the proceeding, the high end of the range for CCGT units from the "heat rate and emissions w/vintages" table is 1,020 pounds per MWh.<sup>7/</sup> The highest measured emissions for a CCGT with a 60 percent or above capacity factor per the "summary table" is 1,058 pounds per MWh.<sup>8/</sup> The Draft Workshop Report also cites an upper value for gas plants operating in California with a capacity factor above 60 percent to be 1,006 pounds per MWh.<sup>9/</sup> All of these values exceed the Staff proposed 1,000 pounds per MWh.

The Draft Workshop Report relies upon the argument that 1,000 pounds per MWh is well above the average emissions of existing CCGTs, but what is important is whether the full range of CCGTs can comply with the EPS. Since smaller generation plants tend to have higher emissions than large plants, and the full range of sizes, technologies (duct firing and dry cooling), and locations (affecting performance due to altitude and ambient temperature) may not be represented by the stock of existing plants, an emissions value of at least 1,100 pounds per MWh is more appropriate than the 1,000 pounds per MWh standard proposed in the Revised Staff Proposal.

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<sup>5/</sup> Senate Bill (SB) 1368, Section 2, [Chapter 3] § 8341(d)(1) (emphasis added).

<sup>6/</sup> See, Draft Workshop Report, p. 28 ("This standard allows for high performing existing CCGTs to qualify and is significantly above the average emissions reported for gas plants within and outside the state.")

<sup>7/</sup> Data Request Question 3 (served July 11, 2006).

<sup>8/</sup> Data Request Question 3, spreadsheet tab entitled "Summary".

<sup>9/</sup> Draft Workshop Report, page 28.

It is worth noting that of the many parties that filed post-workshop comments, all of whom examined the same data that forms the basis of the Revised Staff Report, not one proposed an EPS of less than 1,100 pounds per MWh for existing gas plants entering into new or renewed commitments. To the extent the interim EPS to be adopted in this proceeding will be created without the benefit of significant analysis and without the rigor of testimony and hearings, the Commission should err on the side of setting a slightly higher standard that will avoid violating SB1368 and will ensure that the full range of CCGTs can comply with the EPS. It is also important to note that adoption of an EPS that includes all existing and potential CCGTs, as the 1,100 pounds per MWh measure does, will not encourage less efficient generation so long as the GHG adder remains in place. Plants competing in a utility RFO will have an incentive to be as efficient as possible since greater efficiency results in lower fuel usage, and fuel is the largest component of total costs. The GHG adder also provides a direct incentive to maximize efficiency and lower the GHG content of the generation since it is a component of the resource evaluation process.

### **III. THE EPS SHOULD INCLUDE CLEARLY DEFINED METHODOLOGIES FOR CALCULATION OF GHG EMISSIONS**

The Revised Staff Proposal reflects the consensus opinion that credit should be given for cogeneration thermal load to recognize the more efficient use of energy. However, the Revised Staff Proposal defers the decision as to the appropriate methodology to be used to determine that credit to a case-by-case assessment by the Commission. The Draft Workshop Report states, “Such credits should reflect the useful, and not just theoretical, thermal energy load and will need to be calculated on a case-by-

case basis.”<sup>10/</sup> While the conclusion that each cogeneration project has a different thermal application and that some case-by-case analysis will be required is correct, it is not the case that the methodology itself can be determined on a case-by-case basis. Rather, the methodology should be clearly defined at the outset in order to avoid delays, inconsistencies and confusion down the road.

Rather than creating an unnecessary ambiguity, the EPS should expressly define the calculation method and not leave this question open to be decided when the first contract is presented to the Commission for approval. SDG&E and SoCalGas proposed a clear and easy to implement methodology based upon deducting the emissions associated with the useful thermal load in their pre-workshop and post-workshop comments.<sup>11/</sup> The emissions associated with the thermal load are calculated as if the thermal application was separate from the electricity production. The emissions associated with useful thermal energy are deducted from the overall emissions of the cogeneration unit assuming a standard efficiency boiler. The calculation is simple and straight-forward, and has been used for air quality purposes by Rhode Island.<sup>12/</sup> If the Commission wishes to more fully evaluate alternate methods in Phase II, it could adopt the SDG&E method solely for purposes of the interim EPS and indicate its intent to revisit the issue in Phase II.

Likewise, the methodology in the Revised Staff Proposal for assessing power from unspecified resource contracts is unclear. While stating that the GHG emissions of

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<sup>10/</sup> Draft Workshop Report, page 29.

<sup>11/</sup> Pre-workshop Comments of San Diego Gas & Electric Company and Southern California Gas Company, filed June 12, 2006, p. 20; Post-workshop Comments of San Diego Gas & Electric Company and Southern California Gas Company, filed June 27, 2006, pp. 13-14.

<sup>12/</sup> State of Rhode Island and Providence Plantations, Department of Environmental Management, Office of Air Resources, Air Pollution Control Regulation No. 43, General Permits for Smaller Electric Generation Facilities, § 43.5.1, Combined Heat and Power.

the power should be based on the CEC “Net System Power” average, the Revised Staff Proposal does not indicate whether the calculation results in such contracts passing or failing to meet the EPS.<sup>13/</sup> This ambiguity is further complicated by the fact that the Draft Workshop Report recommends that the Commission “consider” the CEC’s refined methodology proposed in its recent report, *Proposed Methodology to Estimate the Generation Resource Mix of California Electricity Imports*, CEC-700-2006-007, released in May, 2006 (the “May, 2006 Report”).<sup>14/</sup> SDG&E and SoCalGas support the new, refined methodology for calculation of the “Net System Power” proposed by the CEC in its May, 2006 Report and recommend that the Commission adopt the new methodology and the resulting assigned GHG emissions. The decision as to the appropriate methodology has major significance; power from unspecified resource contracts will pass the EPS if the new CEC methodology described in the May, 2006 Report is applied, but will not pass under the older methodology, as demonstrated in the table below.<sup>15/</sup>

**Comparison of “Old” versus “New” CEC methodologies for  
Calculating “Net System Power”**

	% of System Imports		Emissions per MWh*	Emissions/ Mwh	
	Old	New		Old	New
<b>Coal</b>	38.5%	4.0%	2,080		
<b>Large Hydro</b>	23.5%	24.8%	-		
<b>Natural Gas</b>	33.3%	71.2%	1,165		
<b>Renewables</b>	4.7%	0.0%	-		
<b>Overall</b>				<b>1,189</b>	<b>913</b>

\* - Assuming an average heat rate of 10,000 Btu/kWh

<sup>13/</sup> See, Draft Workshop Report, p. 31.

<sup>14/</sup> *Id.*

<sup>15/</sup> A 10,000 heat rate is used for both coal and natural gas given the lack of available information from the CEC reports as to the average heat rates assumed for power from unspecified contracts. The statement regarding passing or failing is based on the currently proposed EPS of 1,000 pounds per MWh.



Although long-term contracts for power from unspecified resources entered into during the interim period should pass the EPS based upon the new methodology set forth in the May, 2006 Report, examination on a case-by-case basis will still be required in order to affirm that the carbon content of system power has not changed and that high-emitting sources are not being built in order to provide power to the general market. The Revised Staff Proposal indicates that the Commission intends to be vigilant in monitoring and preventing inappropriate “slicing and dicing” of large contracts.<sup>16/</sup> Thus, the Commission is plainly capable of scrutinizing long-term system power contracts in order to assess whether generation developers are building high-emitting resources to sell into the market as system power.

Since the Revised Staff Proposal treats “null power” – *i.e.*, renewable power stripped of its Renewable Energy Credit (“REC”) – in the same manner, it is critical in order to ensure the clarity of the EPS that the Commission adopt the new CEC methodology for calculating the composition of net system power and that it make clear that this type of power does pass the EPS screen.

#### **IV. THE EPS SHOULD INCLUDE A “SAFETY VALVE” FOR PRICING**

The Revised Staff Proposal provides an exception for reliability purposes,<sup>17/</sup> but fails to include the flexibility necessary to ensure that unforeseen events do not force utility customers to pay exorbitant prices for GHG reductions in the future. For example, assume the Commission adopts the 1,000 lbs. per MWh emissions performance standard and the CCGT with a recorded performance of 1,006 lbs. per MWh desires a contract with SDG&E. Further assume that since it is an older plant it is able to provide a price

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<sup>16/</sup> Draft Workshop Report, pp. 21 and 35.

<sup>17/</sup> Draft Workshop Report, pp. 32 and 37.

that is \$3 per MWh less expensive than the next lowest bid. The implicit GHG price for the 6 lbs. over the EPS limit is \$1,000 per ton of CO<sub>2</sub>, well above what the utility's customers should be expected to pay for GHG reductions.

SDG&E and SoCalGas believe that some type of price “safety valve” should be included as part of the EPS for the protection of utility customers and to ensure consistency with SB 1368, which provides as follows:

In adopting and implementing the greenhouse gases emission performance standard, the commission, in consultation with the Independent System Operator shall consider the effects of the standard on system reliability and overall costs to electricity customers.<sup>18/</sup>

## **V. SUNSET OR MODIFICATION OF THE INTERIM EPS**

The Revised Staff Proposal recommends that the Commission reevaluate the interim EPS at the time that a “GHG cap-and-trade system or other relevant policy (CPUC, state, regional, or other) is functioning”.<sup>19/</sup> The Revised Staff Proposal should be modified slightly to state that the need for an interim EPS will be reevaluated in light of adoption of an enforceable GHG emission limit. This modification reflects the fact that Phase II does not contemplate a “cap-and-trade” system among the three utilities for the reasons detailed in D.06-03-032, but does consider enforceable GHG emissions limits and market-based compliance mechanisms such as offsets that could substantially change the role of the EPS. In addition, SB 1368 requires reevaluation of the EPS “when an enforceable greenhouse gases emissions limit is established and in operation . . .”<sup>20/</sup>

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<sup>18/</sup> Senate Bill (SB) 1368, Section 2, [Chapter 3] § 8341(d)(6).

<sup>19/</sup> Draft Workshop Report, p. 34.

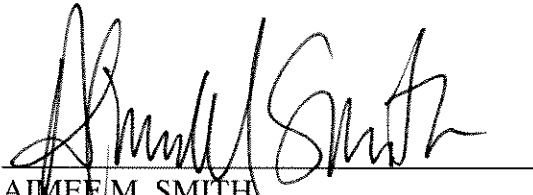
<sup>20/</sup> Senate Bill (SB) 1368, Section 2, [Chapter 3] § 8341(g).

The revision proposed above would also make clear that while the interim EPS will not be eliminated prior to establishment and operation of an enforceable GHG emission limit, *discussion and evaluation* of the ongoing need for the interim EPS and of the manner in which EPS might be rolled into regulatory scheme adopted in Phase II can and should occur during Phase II, in advance of the actual implementation of the enforceable GHG limit.

## **VI. CONCLUSION**

For the reasons set forth herein, the Commission should adopt an interim EPS based on the Revised Staff Proposal with the modifications detailed above.

Respectfully submitted this 8<sup>th</sup> day of September, 2006.

A handwritten signature in black ink, appearing to read 'Aimee M. Smith', written over a horizontal line.

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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of **COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E) AND SOUTHERN CALIFORNIA GAS COMPANY (U 904 G) ON THE DRAFT WORKSHOP REPORT** has been electronically mailed to each party of record on the service list in **R.06-04-009**. Any party on the service list who has not provided an electronic mail address was served by placing copies in properly addressed and sealed envelopes and depositing such envelopes in the United States Mail with first-class postage prepaid.

Copies were also sent via Federal Express to the Assigned Administrative Law Judges and Commissioner.

Executed this 8<sup>th</sup> day of September, 2006 at San Diego, California.

A handwritten signature in black ink, appearing to read "Dellosa", is written over a horizontal line.

Joel Dellosa

# CALIFORNIA PUBLIC UTILITIES COMMISSION

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